## WEST

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DERWENT-ACC-NO: 1999-419266

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TITLE: Automatic dry processing and separation of packaging waste

INVENTOR: HUESKENS, J; LENZEN, C

PATENT-ASSIGNEE: TRIENEKENS GMBH (TRIEN), TRIENEKENS AG (TRIEN)

PRIORITY-DATA: 1998DE-1000521 (January 9, 1998)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
WO 9934927 A1	July 15, 1999	G	020	B03B009/06
DE 19800521 C2	October 5, 2000		000	B03B009/06
DE 19800521 A1	July 22, 1999		000	B03B009/06

DESIGNATED-STATES: JP KP AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

## APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
WO 9934927A1	January 4, 1999	1999WO-EP00004	
DE 19800521C2	January 9, 1998	1998DE-1000521	
DE 19800521A1	January 9, 1998	1998DE-1000521	

INT-CL (IPC): B03 B 9/06; B07 B 9/00; B07 B 9/02; B29 B 17/02

ABSTRACTED-PUB-NO: WO 9934927A

BASIC-ABSTRACT:

NOVELTY - Fractionation is carried out by classifying the waste by sieving with successively finer sieves, each fraction being then further classified by air elutriation or centrifugal separation. Ferrous components are removed by magnetic separators and nonferrous metal by centrifugal separators. Plastic components are separated by infrared spectroscopy and optical shape recognition.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for the plant to carry out the process. The main sieving stages (3, 11, 14) use sieves of 180-250 mm, 100-150 mm and 30-60 mm respectively. Air separation (4, 15, 19, 22) then produces light and heavy fractions, each being transported on a conveyor running slowly enough to avoid disturbance. Unusable residue is collected (7) for disposal.

USE - Disposal of packaging waste by separating out components which can be recycled, e.g. ferrous and nonferrous metals, plastics and paper.

ADVANTAGE - Completely automated process with minimum labor requirements giving high quality product.

DESCRIPTION OF DRAWING(S) - The drawing is a flow chart for the process.

Sack opener 2

Rotating drum sieves 3,11,14

Centrifugal or elutriating air separations 4,15,19, 22

Magnetic separators 5,9,12,18

Centrifugal metal separators 13,22

Optical or IR spectroscopy separations 6, 8, 16, 17, 20, 23, 24

Discarded waste 7

Bale press for light plastics 21

ABSTRACTED-PUB-NO: WO 9934927A

EQUIVALENT-ABSTRACTS:

CHOSEN-DRAWING: Dwg.1/1

DERWENT-CLASS: A35 A92 P41 P43

CPI-CODES: A09-D03; A11-C07; A12-P01B;